RICHARDSON ELECTRONICS, LTD
MANUFACTURING DIVISION
40W267 KESLINGER ROAD
LAFOX, ILLINOIS 60147 USA
TELEPHONE: (630)208-2300 FAX: (630) 208-2350

FAX MESSAGE

****

DATE:05/24/2002

TO: Mr Anthony S Kirkwood

FAX TELEPHONE: 301-415-5369

CC TO:

FROM: JOHN NIELSEN

VOICE TELEPHONE: 630-208-2253

E-MAIL: JOHNN@RELL.COM

DELIVERY CONFIRMATION REQUESTED TO:

NUMBER OF PAGES (INCLUDING THIS PAGE: 6

Dear Mr Kirkwood,

Please find included with fax cover letter, a copy of the State of Illinois Department of Nuclear Safety License issued to Richardson Electronics. I shall also send you the same license via E-mail to ensure its delivery.

Best Regards,

John Nielsen
Radiation Safety Officer
Richardson Electronics LTD

630/208/2253 Telephone
630/208/2350 Fax
Johnn@RELL.com E-mail

IDNS.FLM-004-01 (9/91)

STATE OF ILLINOIS
DEPARTMENT OF NUCLEAR SAFETY

RADIOACTIVE MATERIAL LICENSE

DIVISION OF RADIOACTIVE MATERIALS
1035 OUTER PARK DRIVE
SPRINGFIELD, ILLINOIS 62704

Pursuant to the Illinois Radiation Protection Act and the rules and regulations in 32 Illinois Administrative Code promulgated thereunder, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, own, possess and transfer radioactive material(s) listed herein, and to use such radioactive material(s) for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules, regulations and orders of the Illinois Department of Nuclear Safety now or hereafter in effect and to any conditions specified in the license. This document confirms that the licensee has registered the sources of radiation listed below in accordance with Section 2 of the Radiation Installations Act.

LICENSEE	LICENSE NUMBER	EXPIRATION DATE
Richardson Electronics, Ltd. 40W267 Keslinger Road LaFox, IL 60147	IL-01477-01	November 30, 2004
	AMENDMENT NUMBER 10	

Attention: **John S. Nielsen**
Radiation Safety Officer

In accordance with letter dated March 12, 2002, License Number IL-01477-01 is amended in its entirety. Previous amendments are void.

ITEM	RADIONUCLIDE	CHEMICAL and/or PHYSICAL FORM	MAXIMUM ACTIVITY* PER SOURCE	MAXIMUM POSSESSION LIMIT
A.	Kr-85	Gas		15 Ci
B.	Sr-90	Sealed Source - Serial Number 214	300 µCi	300 µCi
C.	Pm-147	Sealed Source - Unit Process Assemblies, Inc. Model 10	50 µCi	50 µCi
D.	Tl-204	Sealed Source - Unit Process Assemblies, Inc. Model 10	100 µCi	100 µCi

AUTHORIZED USE:

A. For manufacture of readout, spark gap and cold cathode electron tubes.

B. Storage only.

C. and D. For use in a Unit Process Assemblies, Inc. Compuderm thickness gauge.

*µCi-microcuric; mCi-millicuric; Ci-Curie; MBq-Megabecquerel; GBq-Gigabecquerel; TBq-Terabecquerel; g-gram; µg-microgram; kg-kilogram

APPROVED BY:	DATE	PAGE of PAGES
Charles G. Vinson, Head of Materials Licensing	April 10, 2002	1 5

IL 473-0055

IDNS.FLM-004-02 (a/91)

STATE OF ILLINOIS
DEPARTMENT OF NUCLEAR SAFETY
RADIOACTIVE MATERIAL LICENSE

LICENSEE	LICENSE NUMBER	AMENDMENT NUMBER	EXPIRATION DATE
Richardson Electronics, Ltd.	IL-01477-01	10	November 30, 2004

CONDITIONS

1. Radioactive material shall be used only at the licensee's facilities located at 40W265 Keslinger Road, LaFox, Illinois in accordance with statements, representations and procedures listed in other conditions of this license.

2. Radioactive material shall be used by, or under the direct supervision of, John Nielsen, Jerry Wessel or David McDonald.

3. The Radiation Safety Officer for this license is **John Nielsen.**

4. This license does not authorize distribution to persons exempted from 32 Ill. Adm. Code 330 or licensed pursuant to 32 Ill. Adm. Code 330.30, 330.40, 330.210, or 330.220(b) or equivalent regulations of an Agreement State or the U.S. Nuclear Regulatory Commission.

5. A. Each sealed source possessed under this license shall be tested for leakage and/or contamination as specified in 32 Ill. Adm. Code 340.410. Tests for leakage and/or contamination shall be performed by persons specifically licensed to provide such services.

   B. This license does not authorize analysis of leak test samples. However, the licensee is authorized to collect leak test samples for analysis by persons specifically authorized by the Department, an Agreement State, a Licensing State, or the U.S. Nuclear Regulatory Commission to perform such services.

   C. The records of tests for leakage and/or contamination shall contain the manufacturer, model and serial number, if assigned, of each source tested, the identity of each source radionuclide, the results for each test sample expressed in Bq or μCi, the date the sample was collected, the date the sample was analyzed, the identity of the individual who collected the sample(s) and the identity of the individual who analyzed the sample(s).

6. The licensee shall have radiation survey instrument(s) used to establish compliance with 32 Ill. Adm. Code calibrated by a person specifically authorized by the Department, an Agreement State, a Licensing State, or the U.S. Nuclear Regulatory Commission to perform such services. Records of radiation survey instrument calibrations shall be maintained for Department inspection.

7. A. The licensee shall remove from service any radiation survey instrument which exhibits reference check source readings deviating by more than plus or minus 20 percent from the reference check source reading taken immediately after calibration.

(Condition 7. continued)

B. The licensee shall check each radiation survey instrument with a dedicated check source on each day that the instrument is used. This check source shall have a half-life greater than five years. These checks shall be taken with the check source placed in a specific geometry relative to the detector. The results of these reference check source readings shall be recorded, at a minimum,

1. After repair, battery change, or radiation survey instrument calibration; and

2. At intervals not to exceed three months.

C. The licensee shall maintain records of radiation survey instrument reference check source readings which include, as a minimum:

1. The make, model and serial number of the radiation survey instrument;

2. The check source radionuclide, activity and assay date;

3. The position of the check source relative to the detector (geometry);

4. The results and dates of readings taken; and

5. The radiation survey instrument reading observed when using the check source immediately after the latest full radiation survey instrument calibration and the date of that observation.

8. The licensee is hereby authorized to dispose of Kr-85 in accordance with the statements, representations and procedures listed in application dated August 15, 2000 and other conditions of this license.

9. Individuals who work in, or whose duties may require them to work in restricted areas, shall be instructed in the items specified in 32 Ill. Adm. Code 400.120 at the time of initial employment and at least annually thereafter. The licensee shall maintain records of initial and annual employee training for Departmental inspection for 5 years from the date on which the training was given. The record shall contain a signed statement the individuals have received the information in 32 Ill. Adm. Code 400.120 and understand it, and the date(s) the training was received by the individuals.

10. The licensee shall measure airflow rates initially and semi-annually thereafter to assure proper ventilation system performance. Records of the evaluation of ventilation system performance shall be maintained for Department inspection and shall include: the date of evaluation; results of ventilation rate measurements; manufacturer, model and serial number of the measurement instrument used; and the identity of the individual performing the measurements.

11. Installation, initial radiation monitoring, relocation, removal from service, maintenance and repair of devices containing radioactive material and installation, replacement and disposal of sealed sources containing radioactive material used in devices shall be performed only by the manufacturer or by other persons specifically authorized by the Department, an Agreement State, a Licensing State, or the U.S. Nuclear Regulatory Commission to perform such services.

12. At intervals not to exceed 6 months, the licensee shall conduct a physical inventory and inspection of each device containing radioactive material authorized by this license. This inventory and inspection shall determine, where applicable, at least the general physical condition of the device, proper shutter operation and adequate posting of caution signs, labels and signals required by 32 Ill. Adm. Code 340.920. Records shall be maintained for inspection by the Department and shall include the date of inventory and inspection, the location of the device, the manufacturer, model and serial number of the device, the manufacturer, model and serial number of the sealed source contained in the device, the radionuclide, activity, and activity assay date of each sealed source contained in the device, and the findings of each of the checks performed during the physical inspections.

13. The licensee shall instruct all users that any maintenance or repair on the devices involving the removal of the source holders shall be performed only by the device manufacturer or by other persons specifically authorized by the Department, an Agreement State, a Licensing State, or the U.S. Nuclear Regulatory Commission to perform such services.

14. The licensee shall maintain a copy of the manufacturer's instruction manual at each facility and shall install and operate each device within the manufacturer's specified temperature and/or environmental limits such that the shielding and shutter mechanism of the source holder are not compromised.

STATE OF ILLINOIS
DEPARTMENT OF NUCLEAR SAFETY
RADIOACTIVE MATERIAL LICENSE

LICENSEE	LICENSE NUMBER	AMENDMENT NUMBER	EXPIRATION DATE
chardson Electronics, Ltd.	IL-01477-01	10	November 30, 2004

15. Except as specifically provided otherwise by the license, the licensee shall possess and use radioactive material described in all schedules of this license in accordance with statements, representations and procedures contained in, referenced in, or enclosed with the documents listed below. The regulations contained in 32 Ill. Adm. Code: Chapter II, Subchapters b and d shall govern unless the statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations. The most recent statements, representations and procedures listed below shall govern if they conflict with previously submitted documents.

A. Applications dated November 23, 1999 and August 15, 2000.

B. Letter, with attachments, dated February 11, 2000.

C. Letter dated March 30, 2000.

CGV:MEB:kjg

RICHARDSON ELECTRONICS, LTD
MANUFACTURING DIVISION
40W267 KESLINGER ROAD
LAFOX, ILLINOIS 60147 USA
TELEPHONE: (630)208-2300 FAX: (630) 208-2350

FAX MESSAGE

****

DATE:05/13/2002

TO: Mr Anthony S Kirkwood

FAX TELEPHONE: 301- 415-5369

CC TO:

FROM: JOHN NIELSEN

VOICE TELEPHONE: 630-208-2253

E-MAIL: JOHNN@RELL.COM

DELIVERY CONFIRMATION REQUESTED TO:

NUMBER OF PAGES (INCLUDING THIS PAGE: 5

Dear Mr Kirkwood,

Please find included with fax cover letter, correspondence dated April 30, 1991 (2 pages) and April 1, 1992 (2 pages) per your telephone request.

Best Regards,

John Nielsen
Radiation Safety Officer
Richardson Electronics LTD

630/208/2253 Telephone
630/208/2350 Fax
Johnn@RELL.com E-mail

Richardson Electronics, Ltd.

40W267 Keslinger Road
LaFox, IL 60147 USA

Phone: (800) 348-5580
(708) 208-2200
FAX: (708) 208-2550
Telex: 283461

30 APRIL 1991

United States
Nuclear Regulatory Commission
Div. of Industrial, and Medical Nuclear
Safety, NMSS
Washington, D.C. 20555

To Whom It May Concern,

Subject: Request to Renew Material Distribution License 12-09745-02E.

1. The information contained in this request for renewal of Distribution License 12-09745-02E will supersede all previous correspondence of said license.

2. This License shall be used for the distribution of Electron Tubes containing not more than 30 microcuries of Krypton 85 per tube. (NOTE: We are requesting that the maximum activity level listed on our present license be increased from 5 microcuries per tube to 30 microcuries per tube.)

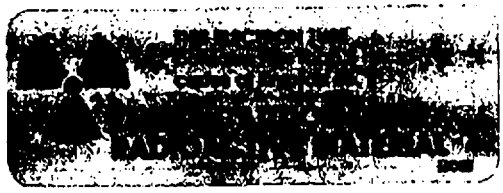
3. The company name and location used for the distribution of this material shall be:

   Richardson Electronics Ltd.
   40W267 Keslinger Road
   LaFox, IL 60147

4. We request that all reference to Hydrogen 3 (Tritium) be removed from our license. Our company will no longer distribute items which contain this isotope.

5. The Electron Tubes being distributed which contain Kr-85 shall consist of several nickel-aluminum or molybdenum elements enclosed in a glass envelope. access to the interior of the envelope was through a glass tube sealed into one end of the envelope. The tubes are first evacuated (vacuum induced in the envelope) then back filled with a metered quantity of gas containing Kr-85. This gas fill is monitored to assure that the proper amount of Kr-85 is inserted in each tube. The tubes are then permanently sealed by melting the end of the glass tubing closed. This manufacturing process is controlled under our Illinois Department of Nuclear Safety License IL-01477-01.

6. Each Electron Tube containing Krypton 85 shall have a Radioactive Material Caution label attached to each unit container. The label attached below is a sample of the label used at this facility. This label is for all devices containing less than 5 microcuries of Kr-85 per tube. When more than 5 microcuries of Kr-85 are in a device, the same style of label shall be used, but the activity level of that tube shall appear on the label.



7. The following ten pages contain the required information on all items transferred in the last five years. The information listed is by Richardson Electronics Ltd's fiscal years 1987, 1988, 1989, 1990, and 1991.. The information contained in each years summery is the tube type transferred, quantity transferred, maximum activity in each device transferred, and total activity transferred. The total number of devices transferred in the last five years was: 63,429 pcs. The total activity contained in all of those devices transferred was: 72.85529 mCi of Krypton 85.

If there are any questions concerning this request to renew our license, please feel free to contact me. My direct phone line is (708) 208-2270.

Very truly yours,

Richardson Electronics Ltd.

Larry Krauss
Radiation Safety Officer

Richardson Electronics, Ltd.

40W267 Keslinger Road
LaFox, IL 60147 USA

Phone: (800) 348-5580
(708) 208-2200
FAX: (708) 208-2550
Telex: 283461

01 April 1992

United States
Nuclear Regulatory Commission
Div. of Industrial, and Medical Nuclear
Safety, NMSS
Washington, D.C. 20555

Attn: Torre Taylor

Dear Ms. Taylor

This is a response to your letter dated 20 February, 1992. Your letter requested some additional information to renew our distribution license. NRC License Number 12-09745-02E. The following information is being supplied to satisfy the requirements of your request:

1. A copy of our possession license is being forwarded with this letter for your review (see attachment 1).

2. Richardson Electronics Ltd requests that the maximum activity level per tube allowed by our license be amended. We request that the activity level be increased from 5 microcuries per tube to 30 microcuries maximum per tube. We have reviewed the activity level of the tube type 430C and have confirmed that it does in fact contain a maximum of 15 microcuries of Kr-85 per tube.

3. The quality control procedures used at our facility to assure compliance with manufacturing standards for all items containing Kr-85 are as follows:

   A. After a tube has been evacuated, it is then back filled with a specified volume of gas which has been predetermined for that specific tube type. The final gas fill pressure is monitored using a vacuum pressure gauge. This ensures that the gas fill of each tube is consistent. When the pressure is as specified for that specific tube, the tube is then permanently sealed off.

   B. All tubes after being completed are then sent to our final testing area. All tubes are 100% tested for conformance with the specific test standards for that tube type. This testing verifies that the proper gas fill and activity have been sealed in each tube. Under gas fill or over gas fill can be readily determined by the operation of the tube.

C. Defective products are disposed of by crushing in a vented can outside of our facility. The can is taken approximately 50 or more feet from the building in an area where the wind in blowing away from the building. The tubes are then crushed in the can with a metal plunger. The gas released is vented to the open air. A log is maintained of each tube type scrapped, as well as quantity scrapped and amount of gas released.

4. Point 4 of your letter dated 20 February, 1992 requests that the unit be labeled with so that the manufacturer can be identified. All of our products are branded with our manufacture logo and name. Our manufacture identification is also included on each unit container. This information is not applied directly to the byproduct label but is applied directly on the individual tubes and unit containers.

5. Richardson Electronics can ensure that each product can not contain more than 30 microcurries of Kr-85 by the method described in paragraph 3 above. Gas fill pressure is critical to the operation of our products. A tube containing more than the prescribed amount of gas per tube will not operate properly and could be immediately detected when tested.

If there are any additional questions about the information supplied, please feel free to contact us.

Very truly yours,

Richardson Electronics Ltd.

Larry Krauss
Radiation Safety Officer

Enclosure: Attachment 1

Richardson Electronics, Ltd.
ISO9002 Registered

Corporate Headquarters
40W267 Keslinger Road
LaFox, IL 60147
USA

Phone: (800) 348-5580
(630) 208-2200
Fax: (630) 208-2550
Internet: http://www.rell.com
email: info@rell.com

May 3, 2002

United States
Nuclear Regulatory Commission
Washington, DC 20555-0001
Materials Safety and Inspection Branch
Division of Industrial and Medical Nuclear Safety
Office of Nuclear Material Safety and Safeguards

Attention Mr Anthony S Kirkwood
Mail Stop T8F5

Dear Mr Kirkwood,

Subject: Request for additional information.
Docket No. 030-04181
License No. 12-09745-02E
Mail Control No. 022236

Per your letter dated April 25, 2002, I am sending the additional information you have requested. This information shall contain as follows:

1) An exempt report distribution report for the products we have distributed since our last report you have on file which is dated April 30, 1991 pursuant to 10 CFR 32.16.
2) This exempt distribution report shall contain a fiscal year beginning to fiscal year ending report of products distributed during that particular fiscal year, their activity levels and total activity levels.
3) The report shall begin with events of May 1, 1991 through April 30, 2002 with each fiscal year treated as a separate section of the report.
4) Two totals shall be included. The first shall be dated from May 1, 1991 through May 31, 1997 and the second shall be dated from June 1, 1997 through April 30, 2002.
5) These totals shall detail the total quantity of electron tubes distributed or transferred during the time period noted and the total activity level of that quantity of tubes.

Sincerely,

John Nielsen
Radiation Safety Officer
Richardson Electronics LTD

630/208/2253 Telephone
630/208/2350 Fax

johnn@rell.com

Richardson Fiscal Year 1992
Electron Tubes Distributed from May 1 1991 to May 31 1992

Tube Type	Total Quantity	Maximum Activity Level uCi/Tube	Total Activity Level uCi
2040	8095	0.9	7285.5
2040-0	1471	0.9	1323.9
2040-1	1237	0.9	1113.3
2040-2	810	0.9	729
2040-3	505	0.9	454.5
2040-4	0	0.9	0
313CC	21	0.5	10.5
346C	14	4.5	63
358A	1481	0.05	74.05
359A	0	1.2	0
376C	0	4	0
423C/6140	0	4.5	0
425A	4	3	12
426A	414	2	828
427A	2	4	8
430B	0	4.5	0
430C	0	15	0
432B	0	4.5	0
446A	10	0.62	6.2
GR15	48	0.43	20.64
GR16	7	0.62	4.34
GR17	0	0.62	0
KX642/642	193	0.3	57.9
NL4021A	0	0.1	0
NL4021AL-RO	0	0.1	0
NL40225AL	0	0.1	0
NL4026A	0	0.1	0
NL5092A	0	0.1	0
NL59917A-RO	0	0.1	0
NL7977A-RO	0	0.1	0
NL810A-RO	0	0.1	0
NL844A-RO	0	0.1	0
RGA1-0.3	0	0.46	0
RGA1-1.4	0	0.46	0
RGA1-3.4	0	0.46	0
RGA1-4	0	0.46	0
RGA1-5.6	0	0.46	0
RGA1-8	0	0.46	0
RGA2-.3	0	0.46	0
RGB1-1.4	0	0.52	0
RGB1-3	13	0.52	6.76
RGB2-.5	0	0.52	0
RGC3-2.0	12	1.5	18
RGC3-2.4	0	1.5	0
RGC3-2.5	0	1.5	0
RGC4-2.0	59	1.5	88.5

Richardson Fiscal Year 1992 Electron Tubes Distributed from May 1 1991 to May 31 1992			
Tube Type	**Total Quantity**	**Maximum Activity Level uCi/Tube**	**Total Activity Level uCi**
RGC4-2.2	0	1.5	0
RGC4-2.5	0	1.5	0
RGC4-3.5	0	1.5	0
RGC4-3.7	0	1.5	0
RGC4-6.0	0	1.5	0
RGC4-7.9	0	1.5	0
RGC4-8	0	1.5	0
RGC5-.5	0	1.5	0
RGC5-1.2	33	1.5	49.5
RGC5-1.5	1	1.5	1.5
RGC5-1.6	0	1.5	0
RGC5-2.7	8	1.5	12
RGE4-16	0	0.75	0
RGE4-18	0	0.75	0
RGE4-8.5	0	0.75	0
RGE4-35	0	0.75	0
TG36	49	1.6	78.4
WL759/NL759	18	0.4	7.2
Total Distributed	14505		
Total uCi			12252.69

Richardson Fiscal Year 1993

Electron Tubes Distributed from June 1 1992 to May 31 1993

Tube Type	Total Quantity	Maximum Activity Level uCi/Tube	Total Activity Level uCi
2040	1694	0.9	1524.6
2040-0	320	0.9	288
2040-1	766	0.9	689.4
2040-2	1213	0.9	1091.7
2040-3	566	0.9	509.4
2040-4	6	0.9	5.4
313CC	0	0.5	0
346C	2	4.5	9
358A	4	0.05	0.2
359A	0	1.2	0
376C	0	4	0
423C/6140	3	4.5	13.5
425A	5	3	15
426A	326	2	652
427A	6	4	24
430B	0	4.5	0
430C	0	15	0
432B	0	4.5	0
446A	0	0.62	0
GR15	73	0.43	31.39
GR16	2	0.62	1.24
GR17	5	0.62	3.1
KX642/642	148	0.3	44.4
NL4021A	15	0.1	1.5
NL4021AL-RO	0	0.1	0
NL40225AL	0	0.1	0
NL4026A	0	0.1	0
NL5092A	0	0.1	0
NL59917A-RO	0	0.1	0
NL7977A-RO	0	0.1	0
NL810A-RO	0	0.1	0
NL844A-RO	0	0.1	0
RGA1-0.3	10	0.46	4.6
RGA1-1.4	0	0.46	0
RGA1-3.4	0	0.46	0
RGA1-4	0	0.46	0
RGA1-5.6	0	0.46	0
RGA1-8	0	0.46	0
RGA2-.3	0	0.46	0
RGB1-1.4	0	0.52	0
RGB1-3	0	0.52	0
RGB2-.5	0	0.52	0
RGC3-2.0	310	1.5	465
RGC3-2.4	0	1.5	0
RGC3-2.5	0	1.5	0
RGC4-2.0	500	1.5	750

Richardson Fiscal Year 1993 Electron Tubes Distributed from June 1 1992 to May 31 1993			
Tube Type	**Total Quantity**	**Maximum Activity Level uCi/Tube**	**Total Activity Level uCi**
RGC4-2.2	0	1.5	0
RGC4-2.5	0	1.5	0
RGC4-3.5	0	1.5	0
RGC4-3.7	0	1.5	0
RGC4-6.0	0	1.5	0
RGC4-7.9	0	1.5	0
RGC4-8	0	1.5	0
RGC5-.5	0	1.5	0
RGC5-1.2	0	1.5	0
RGC5-1.5	14	1.5	21
RGC5-1.6	0	1.5	0
RGC5-2.7	0	1.5	0
RGE4-16	0	0.75	0
RGE4-18	0	0.75	0
RGE4-8.5	0	0.75	0
RGE4-35	0	0.75	0
TG36	0	1.6	0
WL759/NL759	26	0.4	10.4
Total Distributed	6014		
Total uCi			6154.83

Richardson Fiscal Year 1994
Electron Tubes Distributed from June 1 1993 to May 31 1994

Tube Type	Total Quantity	Maximum Activity Level uCi/Tube	Total Activity Level uCi
2040	6181	0.9	5562.9
2040-0	115	0.9	103.5
2040-1	564	0.9	507.6
2040-2	1010	0.9	909
2040-3	400	0.9	360
2040-4	12	0.9	10.8
313CC	0	0.5	0
346C	0	4.5	0
358A	10	0.05	0.5
359A	23	1.2	27.6
376C	0	4	0
423C/6140	0	4.5	0
425A	0	3	0
426A	381	2	762
427A	0	4	0
430B	0	4.5	0
430C	0	15	0
432B	0	4.5	0
446A	0	0.62	0
GR15	62	0.43	26.66
GR16	3	0.62	1.86
GR17	12	0.62	7.44
KX642/642	141	0.3	42.3
NL4021A	0	0.1	0
NL4021AL-RO	0	0.1	0
NL40225AL	0	0.1	0
NL4026A	0	0.1	0
NL5092A	0	0.1	0
NL59917A-RO	0	0.1	0
NL7977A-RO	0	0.1	0
NL810A-RO	0	0.1	0
NL844A-RO	0	0.1	0
RGA1-0.3	0	0.46	0
RGA1-1.4	0	0.46	0
RGA1-3.4	0	0.46	0
RGA1-4	0	0.46	0
RGA1-5.6	0	0.46	0
RGA1-8	0	0.46	0
RGA2-.3	0	0.46	0
RGB1-1.4	0	0.52	0
RGB1-3	14	0.52	7.28
RGB2-.5	0	0.52	0
RGC3-2.0	548	1.5	822
RGC3-2.4	0	1.5	0
RGC3-2.5	0	1.5	0
RGC4-2.0	800	1.5	1200

Richardson Fiscal Year 1994 Electron Tubes Distributed from June 1 1993 to May 31 1994			
Tube Type	**Total Quantity**	**Maximum Activity Level uCi/Tube**	**Total Activity Level uCi**
RGC4-2.2	0	1.5	0
RGC4-2.5	0	1.5	0
RGC4-3.5	0	1.5	0
RGC4-3.7	0	1.5	0
RGC4-6.0	0	1.5	0
RGC4-7.9	0	1.5	0
RGC4-8	0	1.5	0
RGC5-.5	0	1.5	0
RGC5-1.2	0	1.5	0
RGC5-1.5	10	1.5	15
RGC5-1.6	0	1.5	0
RGC5-2.7	40	1.5	60
RGE4-16	0	0.75	0
RGE4-18	0	0.75	0
RGE4-8.5	0	0.75	0
RGE4-35	0	0.75	0
TG36	0	1.6	0
WL759/NL759	20	0.4	8
Total Distributed	10346		
Total uCi			10434.44

Richardson Fiscal Year 1995
Electron Tubes Distributed from June 1 1994 to May 31 1995

Tube Type	Total Quantity	Maximum Activity Level uCi/Tube	Total Activity Level uCi
2040	5532	0.9	4978.8
2040-0	65	0.9	58.5
2040-1	175	0.9	157.5
2040-2	557	0.9	501.3
2040-3	186	0.9	167.4
2040-4	12	0.9	10.8
313CC	0	0.5	0
346C	7	4.5	31.5
358A	0	0.05	0
359A	0	1.2	0
376C	0	4	0
423C/6140	0	4.5	0
425A	0	3	0
426A	27	2	54
427A	0	4	0
430B	0	4.5	0
430C	0	15	0
432B	0	4.5	0
446A	0	0.62	0
GR15	6	0.43	2.58
GR16	12	0.62	7.44
GR17	6	0.62	3.72
KX642/642	150	0.3	45
NL4021A	0	0.1	0
NL4021AL-RO	0	0.1	0
NL40225AL	0	0.1	0
NL4026A	0	0.1	0
NL5092A	0	0.1	0
NL59917A-RO	0	0.1	0
NL7977A-RO	0	0.1	0
NL810A-RO	0	0.1	0
NL844A-RO	0	0.1	0
RGA1-0.3	0	0.46	0
RGA1-1.4	0	0.46	0
RGA1-3.4	0	0.46	0
RGA1-4	0	0.46	0
RGA1-5.6	0	0.46	0
RGA1-8	0	0.46	0
RGA2-.3	0	0.46	0
RGB1-1.4	0	0.52	0
RGB1-3	0	0.52	0
RGB2-.5	0	0.52	0
RGC3-2.0	206	1.5	309
RGC3-2.4	0	1.5	0
RGC3-2.5	0	1.5	0
RGC4-2.0	872	1.5	1308

Richardson Fiscal Year 1995
Electron Tubes Distributed from June 1 1994 to May 31 1995

Tube Type	Total Quantity	Maximum Activity Level uCi/Tube	Total Activity Level uCi
RGC4-2.2	0	1.5	0
RGC4-2.5	0	1.5	0
RGC4-3.5	0	1.5	0
RGC4-3.7	0	1.5	0
RGC4-6.0	0	1.5	0
RGC4-7.9	0	1.5	0
RGC4-8	0	1.5	0
RGC5-.5	0	1.5	0
RGC5-1.2	0	1.5	0
RGC5-1.5	20	1.5	30
RGC5-1.6	0	1.5	0
RGC5-2.7	0	1.5	0
RGE4-16	0	0.75	0
RGE4-18	0	0.75	0
RGE4-8.5	0	0.75	0
RGE4-35	0	0.75	0
TG36	0	1.6	0
WL759/NL759	55	0.4	22
Total Distributed	7888		
Total uCi			7687.54

Richardson Fiscal Year 1996
Electron Tubes Distributed from June 1 1995 to May 31 1996

Tube Type	Total Quantity	Maximum Activity Level uCi/Tube	Total Activity Level uCi
2040	1006	0.9	905.4
2040-0	150	0.9	135
2040-1	330	0.9	297
2040-2	201	0.9	180.9
2040-3	192	0.9	172.8
2040-4	0	0.9	0
313CC	0	0.5	0
346C	0	4.5	0
358A	0	0.05	0
359A	0	1.2	0
376C	0	4	0
423C/6140	12	4.5	54
425A	0	3	0
426A	58	2	116
427A	0	4	0
430B	10	4.5	45
430C	0	15	0
432B	0	4.5	0
446A	0	0.62	0
GR15	20	0.43	8.6
GR16	2	0.62	1.24
GR17	3	0.62	1.86
KX642/642	204	0.3	61.2
NL4021A	0	0.1	0
NL4021AL-RO	0	0.1	0
NL40225AL	0	0.1	0
NL4026A	0	0.1	0
NL5092A	0	0.1	0
NL59917A-RO	0	0.1	0
NL7977A-RO	0	0.1	0
NL810A-RO	0	0.1	0
NL844A-RO	0	0.1	0
RGA1-0.3	0	0.46	0
RGA1-1.4	0	0.46	0
RGA1-3.4	0	0.46	0
RGA1-4	0	0.46	0
RGA1-5.6	0	0.46	0
RGA1-8	0	0.46	0
RGA2-.3	0	0.46	0
RGB1-1.4	0	0.52	0
RGB1-3	0	0.52	0
RGB2-.5	0	0.52	0
RGC3-2.0	987	1.5	1480.5
RGC3-2.4	0	1.5	0
RGC3-2.5	0	1.5	0
RGC4-2.0	838	1.5	1257

Richardson Fiscal Year 1996 Electron Tubes Distributed from June 1 1995 to May 31 1996			
Tube Type	**Total Quantity**	**Maximum Activity Level uCi/Tube**	**Total Activity Level uCi**
RGC4-2.2	0	1.5	0
RGC4-2.5	0	1.5	0
RGC4-3.5	0	1.5	0
RGC4-3.7	0	1.5	0
RGC4-6.0	0	1.5	0
RGC4-7.9	0	1.5	0
RGC4-8	0	1.5	0
RGC5-.5	0	1.5	0
RGC5-1.2	0	1.5	0
RGC5-1.5	8	1.5	12
RGC5-1.6	0	1.5	0
RGC5-2.7	32	1.5	48
RGE4-16	0	0.75	0
RGE4-18	1	0.75	0.75
RGE4-8.5	0	0.75	0
RGE4-35	0	0.75	0
TG36	0	1.6	0
WL759/NL759	0	0.4	0
Total Distributed	4054		
Total uCi			4777.25

Richardson Fiscal Year 1997
Electron Tubes Distributed from June 1 1996 to May 31 1997

Tube Type	Total Quantity	Maximum Activity Level uCi/Tube	Total Activity Level uCi
2040	2037	0.9	1833.3
2040-0	180	0.9	162
2040-1	321	0.9	288.9
2040-2	797	0.9	717.3
2040-3	255	0.9	229.5
2040-4	0	0.9	0
313CC	2	0.5	1
346C	0	4.5	0
358A	0	0.05	0
359A	0	1.2	0
376C	0	4	0
423C/6140	0	4.5	0
425A	180	3	540
426A	0	2	0
427A	0	4	0
430B	0	4.5	0
430C	0	15	0
432B	0	4.5	0
446A	0	0.62	0
GR15	14	0.43	6.02
GR16	3	0.62	1.86
GR17	0	0.62	0
KX642/642	194	0.3	58.2
NL4021A	0	0.1	0
NL4021AL-RO	0	0.1	0
NL40225AL	0	0.1	0
NL4026A	0	0.1	0
NL5092A	0	0.1	0
NL59917A-RO	0	0.1	0
NL7977A-RO	0	0.1	0
NL810A-RO	0	0.1	0
NL844A-RO	0	0.1	0
RGA1-0.3	0	0.46	0
RGA1-1.4	0	0.46	0
RGA1-3.4	0	0.46	0
RGA1-4	0	0.46	0
RGA1-5.6	0	0.46	0
RGA1-8	0	0.46	0
RGA2-.3	0	0.46	0
RGB1-1.4	0	0.52	0
RGB1-3	0	0.52	0
RGB2-.5	0	0.52	0
RGC3-2.0	441	1.5	661.5
RGC3-2.4	0	1.5	0
RGC3-2.5	0	1.5	0
RGC4-2.0	627	1.5	940.5

Richardson Fiscal Year 1997 Electron Tubes Distributed from June 1 1996 to May 31 1997			
Tube Type	**Total Quantity**	**Maximum Activity Level uCi/Tube**	**Total Activity Level uCi**
RGC4-2.2	0	1.5	0
RGC4-2.5	0	1.5	0
RGC4-3.5	0	1.5	0
RGC4-3.7	0	1.5	0
RGC4-6.0	0	1.5	0
RGC4-7.9	0	1.5	0
RGC4-8	0	1.5	0
RGC5-.5	0	1.5	0
RGC5-1.2	0	1.5	0
RGC5-1.5	8	1.5	12
RGC5-1.6	0	1.5	0
RGC5-2.7	12	1.5	18
RGE4-16	0	0.75	0
RGE4-18	0	0.75	0
RGE4-8.5	0	0.75	0
RGE4-35	0	0.75	0
TG36	0	1.6	0
WL759/NL759	7	0.4	2.8
Total Distributed	5078		
Total uCi			5472.88

TOTALS

May 1, 1991 to May 31, 1997

Total Tubes Transferred or Distributed = 47,885

Total Activity Transferred or Distributed = 46.77963 mCi

Richardson Fiscal Year 1998
Electron Tubes Distributed from June 1 1997 to May 31 1998

Tube Type	Total Quantity	Maximum Activity Level uCi/Tube	Total Activity Level uCi
2040	2088	0.9	1879.2
2040-0	150	0.9	135
2040-1	96	0.9	86.4
2040-2	360	0.9	324
2040-3	97	0.9	87.3
2040-4	0	0.9	0
313CC	6	0.5	3
346C	0	4.5	0
358A	0	0.05	0
359A	0	1.2	0
376C	0	4	0
423C/6140	0	4.5	0
425A	0	3	0
426A	0	2	0
427A	0	4	0
430B	0	4.5	0
430C	0	15	0
432B	0	4.5	0
446A	0	0.62	0
GR15	6	0.43	2.58
GR16	1	0.62	0.62
GR17	0	0.62	0
KX642/642	54	0.3	16.2
NL4021A	0	0.1	0
NL4021AL-RO	0	0.1	0
NL40225AL	0	0.1	0
NL4026A	0	0.1	0
NL5092A	0	0.1	0
NL59917A-RO	0	0.1	0
NL7977A-RO	0	0.1	0
NL810A-RO	0	0.1	0
NL844A-RO	0	0.1	0
RGA1-0.3	0	0.46	0
RGA1-1.4	0	0.46	0
RGA1-3.4	0	0.46	0
RGA1-4	0	0.46	0
RGA1-5.6	0	0.46	0
RGA1-8	0	0.46	0
RGA2-.3	0	0.46	0
RGB1-1.4	0	0.52	0
RGB1-3	0	0.52	0
RGB2-.5	0	0.52	0
RGC3-2.0	74	1.5	111
RGC3-2.4	0	1.5	0
RGC3-2.5	0	1.5	0
RGC4-2.0	1121	1.5	1681.5

Richardson Fiscal Year 1998 Electron Tubes Distributed from June 1 1997 to May 31 1998			
Tube Type	**Total Quantity**	**Maximum Activity Level uCi/Tube**	**Total Activity Level uCi**
RGC4-2.2	0	1.5	0
RGC4-2.5	0	1.5	0
RGC4-3.5	0	1.5	0
RGC4-3.7	0	1.5	0
RGC4-6.0	0	1.5	0
RGC4-7.9	0	1.5	0
RGC4-8	0	1.5	0
RGC5-.5	0	1.5	0
RGC5-1.2	0	1.5	0
RGC5-1.5	16	1.5	24
RGC5-1.6	0	1.5	0
RGC5-2.7	36	1.5	54
RGE4-16	0	0.75	0
RGE4-18	0	0.75	0
RGE4-8.5	0	0.75	0
RGE4-35	0	0.75	0
TG36	13	1.6	20.8
WL759/NL759	0	0.4	0
Total Distributed	4118		
Total uCi			4425.6

Richardson Fiscal Year 1999 Electron Tubes Distributed from June 1 1998 to May 31 1999			
Tube Type	Total Quantity	Maximum Activity Level uCi/Tube	Total Activity Level uCi
2040	1011	0.9	909.9
2040-0	110	0.9	99
2040-1	246	0.9	221.4
2040-2	390	0.9	351
2040-3	260	0.9	234
2040-4	0	0.9	0
313CC	0	0.5	0
346C	0	4.5	0
358A	0	0.05	0
359A	0	1.2	0
376C	0	4	0
423C/6140	0	4.5	0
425A	0	3	0
426A	0	2	0
427A	0	4	0
430B	0	4.5	0
430C	0	15	0
432B	0	4.5	0
446A	0	0.62	0
GR15	6	0.43	2.58
GR16	0	0.62	0
GR17	0	0.62	0
KX642/642	42	0.3	12.6
NL4021A	0	0.1	0
NL4021AL-RO	0	0.1	0
NL40225AL	0	0.1	0
NL4026A	0	0.1	0
NL5092A	0	0.1	0
NL59917A-RO	0	0.1	0
NL7977A-RO	0	0.1	0
NL810A-RO	0	0.1	0
NL844A-RO	0	0.1	0
RGA1-0.3	0	0.46	0
RGA1-1.4	0	0.46	0
RGA1-3.4	0	0.46	0
RGA1-4	0	0.46	0
RGA1-5.6	0	0.46	0
RGA1-8	0	0.46	0
RGA2-.3	0	0.46	0
RGB1-1.4	0	0.52	0
RGB1-3	0	0.52	0
RGB2-.5	0	0.52	0
RGC3-2.0	318	1.5	477
RGC3-2.4	0	1.5	0
RGC3-2.5	0	1.5	0
RGC4-2.0	795	1.5	1192.5

Richardson Fiscal Year 1999
Electron Tubes Distributed from June 1 1998 to May 31 1999

Tube Type	Total Quantity	Maximum Activity Level uCi/Tube	Total Activity Level uCi
RGC4-2.2	0	1.5	0
RGC4-2.5	0	1.5	0
RGC4-3.5	0	1.5	0
RGC4-3.7	0	1.5	0
RGC4-6.0	0	1.5	0
RGC4-7.9	0	1.5	0
RGC4-8	0	1.5	0
RGC5-.5	0	1.5	0
RGC5-1.2	0	1.5	0
RGC5-1.5	10	1.5	15
RGC5-1.6	0	1.5	0
RGC5-2.7	5	1.5	7.5
RGE4-16	0	0.75	0
RGE4-18	0	0.75	0
RGE4-8.5	0	0.75	0
RGE4-35	0	0.75	0
TG36	0	1.6	0
WL759/NL759	0	0.4	0
Total Distributed	3193		
Total uCi			3522.48

Richardson Fiscal Year 2000
Electron Tubes Distributed from June 1 1999 to May 31 2000

Tube Type	Total Quantity	Maximum Activity Level uCi/Tube	Total Activity Level uCi
2040	0	0.9	0
2040-0	20	0.9	18
2040-1	18	0.9	16.2
2040-2	0	0.9	0
2040-3	123	0.9	110.7
2040-4	0	0.9	0
313CC	0	0.5	0
346C	0	4.5	0
358A	0	0.05	0
359A	0	1.2	0
376C	0	4	0
423C/6140	0	4.5	0
425A	0	3	0
426A	0	2	0
427A	0	4	0
430B	0	4.5	0
430C	0	15	0
432B	0	4.5	0
446A	0	0.62	0
GR15	11	0.43	4.73
GR16	0	0.62	0
GR17	2	0.62	1.24
KX642/642	2	0.3	0.6
NL4021A	0	0.1	0
NL4021AL-RO	0	0.1	0
NL40225AL	0	0.1	0
NL4026A	0	0.1	0
NL5092A	0	0.1	0
NL59917A-RO	0	0.1	0
NL7977A-RO	0	0.1	0
NL810A-RO	0	0.1	0
NL844A-RO	0	0.1	0
RGA1-0.3	0	0.46	0
RGA1-1.4	0	0.46	0
RGA1-3.4	0	0.46	0
RGA1-4	0	0.46	0
RGA1-5.6	0	0.46	0
RGA1-8	0	0.46	0
RGA2-.3	0	0.46	0
RGB1-1.4	0	0.52	0
RGB1-3	0	0.52	0
RGB2-.5	0	0.52	0
RGC3-2.0	67	1.5	100.5
RGC3-2.4	0	1.5	0
RGC3-2.5	0	1.5	0
RGC4-2.0	0	1.5	0

Richardson Fiscal Year 2000 Electron Tubes Distributed from June 1 1999 to May 31 2000			
Tube Type	**Total Quantity**	**Maximum Activity Level uCi/Tube**	**Total Activity Level uCi**
RGC4-2.2	2	1.5	3
RGC4-2.5	0	1.5	0
RGC4-3.5	0	1.5	0
RGC4-3.7	0	1.5	0
RGC4-6.0	0	1.5	0
RGC4-7.9	0	1.5	0
RGC4-8	0	1.5	0
RGC5-.5	0	1.5	0
RGC5-1.2	0	1.5	0
RGC5-1.5	11	1.5	16.5
RGC5-1.6	0	1.5	0
RGC5-2.7	20	1.5	30
RGE4-16	0	0.75	0
RGE4-18	0	0.75	0
RGE4-8.5	0	0.75	0
RGE4-35	0	0.75	0
TG36	3	1.6	4.8
WL759/NL759	0	0.4	0
Total Distributed	279		
Total uCi			306.27

Richardson Fiscal Year 2001
Electron Tubes Distributed from June 1 2000 to May 31 2001

Tube Type	Total Quantity	Maximum Activity Level uCi/Tube	Total Activity Level uCi
2040	0	0.9	0
2040-0	28	0.9	25.2
2040-1	56	0.9	50.4
2040-2	47	0.9	42.3
2040-3	45	0.9	40.5
2040-4	0	0.9	0
313CC	0	0.5	0
346C	0	4.5	0
358A	0	0.05	0
359A	0	1.2	0
376C	0	4	0
423C/6140	0	4.5	0
425A	0	3	0
426A	0	2	0
427A	0	4	0
430B	0	4.5	0
430C	0	15	0
432B	0	4.5	0
446A	0	0.62	0
GR15	5	0.43	2.15
GR16	0	0.62	0
GR17	0	0.62	0
KX642/642	5	0.3	1.5
NL4021A	0	0.1	0
NL4021AL-RO	0	0.1	0
NL40225AL	0	0.1	0
NL4026A	0	0.1	0
NL5092A	0	0.1	0
NL59917A-RO	0	0.1	0
NL7977A-RO	0	0.1	0
NL810A-RO	0	0.1	0
NL844A-RO	0	0.1	0
RGA1-0.3	0	0.46	0
RGA1-1.4	0	0.46	0
RGA1-3.4	0	0.46	0
RGA1-4	0	0.46	0
RGA1-5.6	0	0.46	0
RGA1-8	0	0.46	0
RGA2-.3	0	0.46	0
RGB1-1.4	0	0.52	0
RGB1-3	0	0.52	0
RGB2-.5	0	0.52	0
RGC3-2.0	408	1.5	612
RGC3-2.4	0	1.5	0
RGC3-2.5	25	1.5	37.5
RGC4-2.0	4	1.5	6

Richardson Fiscal Year 2001 Electron Tubes Distributed from June 1 2000 to May 31 2001			
Tube Type	**Total Quantity**	**Maximum Activity Level uCi/Tube**	**Total Activity Level uCi**
RGC4-2.2	0	1.5	0
RGC4-2.5	0	1.5	0
RGC4-3.5	0	1.5	0
RGC4-3.7	0	1.5	0
RGC4-6.0	0	1.5	0
RGC4-7.9	0	1.5	0
RGC4-8	0	1.5	0
RGC5-.5	0	1.5	0
RGC5-1.2	0	1.5	0
RGC5-1.5	6	1.5	9
RGC5-1.6	0	1.5	0
RGC5-2.7	17	1.5	25.5
RGE4-16	0	0.75	0
RGE4-18	0	0.75	0
RGE4-8.5	0	0.75	0
RGE4-35	0	0.75	0
TG36	0	1.6	0
WL759/NL759	0	0.4	0
Total Distributed	646		
Total uCi			852.05

Richardson Fiscal Year 2002
Electron Tubes Distributed from June 1 2001 to April 30 2002

Tube Type	Total Quantity	Maximum Activity Level uCi/Tube	Total Activity Level uCi
2040	0	0.9	0
2040-0	30	0.9	27
2040-1	104	0.9	93.6
2040-2	52	0.9	46.8
2040-3	65	0.9	58.5
2040-4	0	0.9	0
313CC	0	0.5	0
346C	0	4.5	0
358A	0	0.05	0
359A	0	1.2	0
376C	0	4	0
423C/6140	0	4.5	0
425A	0	3	0
426A	0	2	0
427A	0	4	0
430B	0	4.5	0
430C	0	15	0
432B	0	4.5	0
446A	0	0.62	0
GR15	2	0.43	0.86
GR16	0	0.62	0
GR17	0	0.62	0
KX642/642	21	0.3	6.3
NL4021A	0	0.1	0
NL4021AL-RO	0	0.1	0
NL40225AL	0	0.1	0
NL4026A	0	0.1	0
NL5092A	0	0.1	0
NL59917A-RO	0	0.1	0
NL7977A-RO	0	0.1	0
NL810A-RO	0	0.1	0
NL844A-RO	0	0.1	0
RGA1-0.3	0	0.46	0
RGA1-1.4	0	0.46	0
RGA1-3.4	0	0.46	0
RGA1-4	0	0.46	0
RGA1-5.6	0	0.46	0
RGA1-8	0	0.46	0
RGA2-.3	0	0.46	0
RGB1-1.4	0	0.52	0
RGB1-3	0	0.52	0
RGB2-.5	0	0.52	0
RGC3-2.0	369	1.5	553.5
RGC3-2.4	0	1.5	0
RGC3-2.5	2	1.5	3
RGC4-2.0	108	1.5	162

Richardson Fiscal Year 2002
Electron Tubes Distributed from June 1 2001 to April 30 2002

Tube Type	Total Quantity	Maximum Activity Level uCi/Tube	Total Activity Level uCi
RGC4-2.2	0	1.5	0
RGC4-2.5	0	1.5	0
RGC4-3.5	0	1.5	0
RGC4-3.7	0	1.5	0
RGC4-6.0	20	1.5	30
RGC4-7.9	0	1.5	0
RGC4-8	0	1.5	0
RGC5-.5	0	1.5	0
RGC5-1.2	0	1.5	0
RGC5-1.5	6	1.5	9
RGC5-1.6	0	1.5	0
RGC5-2.7	4	1.5	6
RGE4-16	0	0.75	0
RGE4-18	0	0.75	0
RGE4-8.5	0	0.75	0
RGE4-35	0	0.75	0
TG36	0	1.6	0
WL759/NL759	0	0.4	0
Total Distributed	783		
Total uCi			996.56

TOTALS

June 1, 1997 to April 30, 2002

Total Tubes Transferred or Distributed = 9,019

Total Activity Transferred or Distributed = 10.10296 mCi

R1201021 LICENSING TRACKING SYSTEM DATE: 20020423
PAGE: 1

LTS WORKSHEET

DOCKET NO : 03004181 LICENSE NO : 12-09745-02E STATUS: 0

MAIL CONTROL: 022236 RECEIPT DATE : 20020417 ACTION TYPE: 3
DUE DATE : 20021014

FED. GOVT : C INST. CODE : 09745 LICENSE REGION: 0

ISSUE DATE: ~~19920413~~ 20020530 ORIGINAL DATE: 19690718 EXPIRATION DATE: ~~20020430~~ 20120531

NAME : RICHARDSON ELECTRONICS, LTD. DECOM FIN ASSUR REQD: N
SUBM: _

DEPT/BUREAU: _____ CONT PLAN REQD: N APPRV: _

BUILDING : 40W267 KESLINGER ROAD

STREET : P. O. BOX 393

CITY : LA FOX STATE: IL ZIP: 601470393

CONTACT PERSON: JOHN S. NIELSEN PHONE: 630-208-22~~00~~53

PRIMARY PGM CODE : 03251 SECONDARY PGM CODES: _____

INSPECTION REGION: 3 PRIORITY CODE: 5 INSPECTION CATEGORY: E2

RADIATION SAFETY OFFICER: JOHN S. NIELSEN

STATES WHERE USE IS AUTHORIZED: 1
0 - ALL LISTED STATES
1 - SAME AS STATE IN ADDRESS
2 - ALL STATES
3 - NON-AGREEMENT STATES

AUTHORIZED STATES: _____ (USE ONLY IF ABOVE IS ZERO)

REPORTING IDENTIFICATION SYMBOL: _____

APPROVAL FOR: REDISTRIBUTION: N STORAGE ONLY: N
TEMPORARY JOB SITES: N INCINERATION: N
BURIAL: N

EXEMPTIONS GRANTED : _____

EXEMPTIONS REQUESTED: _____

EXEMPTIONS DENIED : _____

NAME AUTHORIZATION

ADDRESS WHERE MATERIAL IS USED OR POSSESSED

BUILDING:
ROOM:
STREET: HDW267 Keslinger Road
CITY: LaFox
STATE: IL 60147-0393

BUILDING:
ROOM:
STREET:
CITY:
STATE:

BUILDING:
ROOM:
STREET:
CITY:
STATE:

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CITY:
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BUILDING:
ROOM:
STREET:
CITY:
STATE:

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: 03251
Status Code: 0
Fee Category: 3I
Exp. Date: 20020430
Fee Comments: _____
Decom Fin Assur Reqd: N

LICENSE FEE TRANSMITTAL

A. REGION HQ

1. APPLICATION ATTACHED
   Applicant/Licensee: RICHARDSON ELECTRONICS, LTD.
   Received Date: 20020417
   Docket No: 3004181
   Control No.: 022236
   License No.: 12-09745-02E
   Action Type: Renewal

2. FEE ATTACHED
   Amount: _____
   Check No.: _____

3. COMMENTS

Signed _____
Date _____

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /__/)

1. Fee Category and Amount: _____

2. Correct Fee Paid. Application may be processed for:
   Amendment _____
   Renewal _____
   License _____

3. OTHER _____
   _____

Signed _____
Date _____

030-04181

Richardson Electronics, Ltd.
ISO9002 Registered

Corporate Headquarters
40W267 Keslinger Road
LaFox, IL 60147
USA

Phone: (800) 348-5580
(630) 208-2200
Fax: (630) 208-2550
Internet: http://www.rell.com
email: info@rell.com

April 15, 2002

United States
Nuclear Regulatory Commission
Region III
Materials Licensing Section
801 Warrenville Road
Lisle, IL 60532-4351

To Whom It May Concern,

Subject: Request to Renew Material Distribution License 12-09745-02E

The information contained within this request for renewal of Distribution License 12-09745-02E shall supercede all previous correspondence of said license.

Item 5: Radioactive Material

A. Element and Mass Number: This license shall be used for the distribution of Electron Tubes containing Krypton 85 (Kr85) per tube.
B. The physical form of the Kr85 is in gaseous form contained within the Electron Tube.
C. Each shall not contain no more than 30 microcuries (30μc) of Krypton 85 per tube.

Item 6: Purpose(s) For Which Licensed Material Will Be Used:

The Electron Tubes being distributed, which contain Kr85, shall consist of several nickel-aluminum, Kovar, tungsten or molybdenum elements enclosed within a glass envelope. Access to the interior of the envelope is through a glass or copper fill tube, sealed into one end of the envelope. The Electron Tubes are first evacuated via mechanical vacuum equipment, inducing a vacuum within the envelope. The Electron Tubes are subsequently backfilled with a metered quantity of gas containing Kr85. This gas fill is monitored to ensure that the correct amount of Kr85 is inserted into each Electron Tube. Sealing off by means of melting the glass tubing or mechanically pinching the copper tubing closed then permanently seals the Electron Tubes. Our Illinois Department of Nuclear Safety License IL-01477-01 controls this manufacturing process.

Item 7: Individual(s) Responsible For Radiation Safety Program and Their Training Experience:

Not applicable to distribution licenses per NUREG – 1556, Vol. 16

Item 8: Training For Individuals Working In Or Frequenting Restricted Areas:

Not applicable to distribution licenses per NUREG – 1556, Vol. 16

022236 APR 17 2002

Item 9: Facilities and Equipment:

Not applicable to distribution licenses per NUREG – 1556, Vol. 16

Item 10: Radiation Safety Program:

Each Electron Tube containing Kr85 shall have a Radioactive Material Caution label attached to each unit container. The attached label below us a sample of the label used at this facility. This label is used for all devices containing less than 5 µc of Kr85 per tube. When more than 5µc of Kr85 are in a device, the same style label shall be used, but the activity level of the particular tube shall appear upon the label.

Item 11: Waste Management:

Not applicable to distribution licenses per NUREG – 1556, Vol. 16

Sincerely,

John Nielsen
Radiation Safety Officer
Richardson Electronics LTD

630/208/2253 Telephone
630/208/2350 Fax

johnn@rell.com

NRC FORM 313 U. S. NUCLEAR REGULATORY COMMISSION
(8-1999)
10 CFR 30, 32, 33
34, 35, 36, 39 and 40

APPROVED BY OMB: NO. 3150-0120 EXPIRES:08/31/2002

Estimated burden per response to comply with this mandatory information collection request: 7.4 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

APPLICATION FOR MATERIAL LICENSE

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

LICENSING ASSISTANT SECTION
NUCLEAR MATERIALS SAFETY BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

SAM NUNN ATLANTA FEDERAL CENTER
U. S. NUCLEAR REGULATORY COMMISSION, REGION II
61 FORSYTH STREET, S.W., SUITE 23T85
ATLANTA, GEORGIA 30303-8931

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
801 WARRENVILLE RD.
LISLE, IL 60532-4351

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-8064

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S.NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

1. THIS IS AN APPLICATION FOR *(Check appropriate item)*
   - [ ] A. NEW LICENSE
   - [ ] B. AMENDMENT TO LICENSE NUMBER _____
   - [X] C. RENEWAL OF LICENSE NUMBER 12-09745-02E

2. NAME AND MAILING ADDRESS OF APPLICANT *(Include Zip code)*
   Richardson Electronics, Ltd.
   P.O. Box 393, 40W267 Keslinger Road
   LaFox, IL 60147 Attn: John Nielsen

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED
   Richardson Electronics, Ltd.
   40W267 Keslinger Road
   LaFox, IL 60147

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

   TELEPHONE NUMBER
   630-208-2253

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL.
   a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE. NA

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS. NA

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSEE FEES *(See 10 CFR 170 and Section 170.31)*
    FEE CATEGORY 3I
    AMOUNT ENCLOSED $ 0

13. CERTIFICATION. *(Must be completed by applicant)* THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39 AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

CERTIFYING OFFICER – TYPED/PRINTED NAME AND TITLE	SIGNATURE	DATE
John S. Nielsen, RSO		April 15, 2002

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			$		
APPROVED BY				DATE	

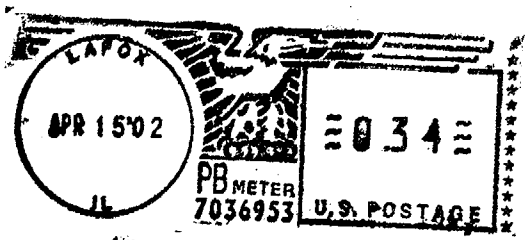
NRC FORM 313 (8-1999) PRINTED ON RECYCLED PAPER

022236

Richardson Electronics

40W267 Keslinger Road
PO Box 393
LaFox, IL 60147-0393
USA

Address Service Requested



U. S. Nuclear Regulatory Commission
Nuclear Materials Safety & Safeguards
Two White Flint North
ATTN: Maureen Moriarty
Operations Branch
11545 Rockville Pike
Rockville, MD 20852

60532-1396 22

PERFORMANCE AND LIMITED REVIEW CHECKLIST

Licensee: Richardson Electronics, Ltd.
License or Docket No: 12-09745-02E
Control No: 022236

The following performance indicators were reviewed:

Performance Indicator	Conclusion	If YES, explain:
Enforcement History	YES ____ NO ✓	
Loss of Material	YES ____ NO ✓	
Unauthorized Disposal or Release of Material	YES ____ NO ✓	
Overexposure	YES ____ NO ✓	

If any of the above items are checked "YES", perform a Comprehensive Review using the applicable guidance contained in NUREG 1556. If all boxes are checked "NO," perform a Limited Review. An exception must be approved by a supervisor, documented on this form, or a copy of the documentation must be attached to this document for placement in the docket file.

Additional Information or Explanation of Exception
NMED had one hit in April 1999, for a Sr-90, 124uCi source that was unaccounted for. The source was possessed under Illinois license IL-01477-01. There is no connection between this source and the NRC license.

Comprehensive Review ____
Limited Review X

A. Kilwood 24 May 02
Reviewer / Date

Supervisor / Date

LIMITED REVIEW ITEMS[1]

Licensee: Richardson
License or Docket No: 030-04181
Control No: 022236

X NRC-313 or appropriate equivalent signed and dated by senior licensee representative.

X Place of use is a physical location (i.e., not P.O. Box, etc.)

NA RSO and key personnel are appropriately qualified.

NA Facilities and equipment are adequate.

X All uses qualify for a categorical exclusion in 10 CFR Part 51.

NA Organizational structure conforms with applicable regulations and NUREG 1556 guidance[2] (appropriate individuals are present and are assigned necessary authority & responsibility)

NA The audit program structure conforms with applicable regulations and NUREG 1556 guidance[2].

NA New authorizations requested by the licensee and any major program elements which require change as a result of the new authorization structure conform with applicable regulations and NUREG 1556 guidance[2].

Major program changes, new high risk technology programs, and changes in control (ownership) normally require only a focused review of the specific changes. If these changes are so extensive that a Comprehensive Review of the entire application is needed, obtain Branch Chief approval before proceeding. Each of the following three items must be marked with NA or a check and the change briefly identified.

NA *Major program change conforms with applicable regulations and NUREG 1556 guidance[2].*

NA *New high risk technology program conforms with regulations for similar technologies, guidance provided for similar technologies in NUREG 1556 guidance[2], and specific licensing conditions for the new technology.*

---

[1] Use either a check mark to designate a satisfactory response, "NA" to designate not applicable or "D" to designate deficiency as appropriate.

[2] Reviewers are reminded licensees have the flexibility to provide information equivalent to that requested in NUREG 1556.

NA *Change in Control (Ownership) conforms with applicable regulations and NUREG 1556 guidance[2].*

X A brief overview of the remainder of the application found the major areas discussed in the guidance[2] described in Section 8 of the appropriate NUREG 1556 series are present.

NA An obvious failure or a deficiency in a significant area resulted in a thorough review of that area.

NA A Comprehensive Review was conducted and the reason for changing from a Limited Review to a Comprehensive Review is documented on the "Performance and Limited Review Check List."

X Appropriate additional information was requested (circle as appropriate: phone log / e-mail/(fax)/ letter/_____)

NMED

Nuclear Materials Events Database

Click on the Browser's 'Back' Button at the top left of the screen to return to the previous page.

These are your Selected Query Options:

Licensee Name/License Number: Richardson Electronics	**Reporting Requirement:** All names and numbers are included
State(s): All States are included	**Isotope:** All Isotope are included
Event Cause: All Causes are included	**Keyword:** All Key Words are included
System Involved: All Systems are included	**Date Range:** 01/01/1989 to 05/23/2002
Component Involved: All Components are included	**NRC Region(s):** 0 1 2 3 4
Reportable Events: All States: Reportable, Not Reportable and Unknown	**Event Classes Included:** All Event Classes are Included
Agreement State Status: All States: Agreement or Not	**Abnormal Occurrence Status:** All Occurrence: Abnormal or Not
Sorted By: Licensee Name	

Display Full Report

Results limited to 20 per page change settings

There were **1** hits on this search. Page: 1 of 1

Change to Item List

NMED Item Number: 990401

Event Details

ABSTRACT: During a routine inspection of the licensee's facility, a Sr-90 source could not be located by the licensee. The source, whose manufacturer was not known, contained 11.1 MBq (300 uCi) in December 1962 and was authorized for storage only. The source contained approximately 4.6 MBq (124 uCi) of Sr-90 activity in April 1999. The manufacturer and model number for this source was never known, even when this facility was licensed by the NRC prior to 1987 (12-09745-01). The source carried a serial number of 214, but it was probably assigned by the licensee. Corrective actions taken by the licensee include storing the two remaining unknown sources in a cabinet only accessible by the RSO.

Event Date	Discovery Date	Report Date
04/16/1999	04/16/1999	04/16/1999

Licensee / Reporting Party Information:

Agreement State Regulated:	YS	Reciprocity:	NONE
License Number:	IL-01477-01	Licensee:	RICHARDSON ELECTRONICS, LTD.
Docket:	NA	City:	LAFOX
Program Code:	85200	State:	IL
NRC Region Office:	3		

Site of Event:

Site Name: LAFOX
State: IL

Additional Involved Party:

License No: NA Name: NA
City: NA
State: NA

Other Information:

NRC Reportable Event:	Y	Abnormal Occurrence:	N
Agreement State Reportable Event:	Y	Investigation:	Y
Atomic Energy Act Material:	Y	NMED Record Complete:	Y
Consultant Hired:	N	Event Closed by Region/State:	

Event Class:

LAS - LOST OR STOLEN
CAUSE: LOSS OF ADMINISTRATIVE CONTROL

Equipment Information (Component Level):

LAS

Component ID#:	1	Radionuclide:	SR-90
Component ID:	SEALED SOURCE OTHER	Activity (Curies):	0.0001237
Manufacturer:	NR	Leak Test Results (uCi):	NR
Model Number:	NR	Problem with Component:	
Serial Number:	214		

Reporting Requirements:

LAS Mode Reported: WRITTEN
Report Requirements: 20.2201(b)(1) - THE 30 DAY WRITTEN REPORT FOLLOWING A 20.2201(a) TELEPHONE REPORT.

Contributing Factors/Corrective Actions Information:

LAS
Factor #: 1
Contributor Factor: NOT REPORTED
Corrective Action: IMPROVE RADIOACTIVE MATERIAL LABELING AND HANDLING

Keywords

LAS
Keyword: SEALED SOURCE OTHER

Event Documents List

Report ID No	Entry Date	Retraction Date	Type of Report
IL990024	06/30/1999		AGREEMENT STATE EVENT REPORT
LTR991015	10/18/1999		AGREEMENT STATE LETTER

Change to Item List

NMED Home | Report Menu